

GeneSat-1 Day 7 Mission Operations Summary: T = Launch + 6 days, 5 hours

C. Kitts, 12/22/06

Two contacts were executed today at ~ 0445 and 0520 PST. Based on the data downloaded during these contacts, 96 hours worth of biological experiment data has now been downloaded at the baseline resolution. The team estimates that we are now ~ 2+ weeks ahead of schedule in terms of our data download requirements for this phase of the mission.

Payload operation continued to be outstanding during the last day of the biological experiment, with biological activity as expected. Payload temperature continues to hold steady at or very near the 34 degree C control set-point. Payload pressure is nominal with a temperature-driven fluctuation in the range of 14.6 to 14.8 psi. Bus health remains nominal with good temperatures, no CPU resets, and nominal power. Because of the noticeable bus and payload clock drift that has been observed, the ops team downloaded clock data with the hope to track drift over time (and to potentially run controlled experiments to characterize the drift, for example as a function of temperature). The team also started to download high-resolution bus health data from immediately after deployment.

Communications remain functional, and the elevated 2.4 GHz command channel success rate observed yesterday continued, with that rate being 56% for today's contacts. The beacon channel remains strong throughout all contacts with successful packet decoding.

Contact summary to date: 21 successful contacts over 7 days. 371 successfully executed commands. 1.33 Mbits of mission data downloaded. Command channel success rate currently at 56%.

Ground segment operation is nominal. There were no station resource conflicts with the past day's dual use between GeneSat and MEPSE, and we do not anticipate any over the next day (the duration of the battery-operated MEPSE lifetime).

Amateur radio operators continue to track the satellite, with more than 8900 externally acquired and submitted packets to date.

We note that the dashboard website has received 17,250+ hits in the past 45 hours.

Day 4 Mission Operations Team: Mike Rasay – command channel operator, Ignacio Mas – telemetry analyst, Phelps Williams– beacon channel operator and command channel operator, Chris Kitts –telemetry, Paul Mahacek – dish tracking.